pharmaceutics

Supplementary Materials: Design and Characterization of Ethosomes for Transdermal Delivery of Caffeic Acid

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Table S1. Kinetic modelling of stability profile of CA aqueous solution stored for 30 days at different temperatures.

Kinetic Parameters	4 °C R^2/K	22 °C R^2/K	40 °C R^2/K
Zero order	0.991/3.442	0.968/3.256	0.986/3.382
First order	0.760/0.197	0.716/0.207	0.869/0.142

data are the mean of 3 independent experiments, S.D. were within ± 5%

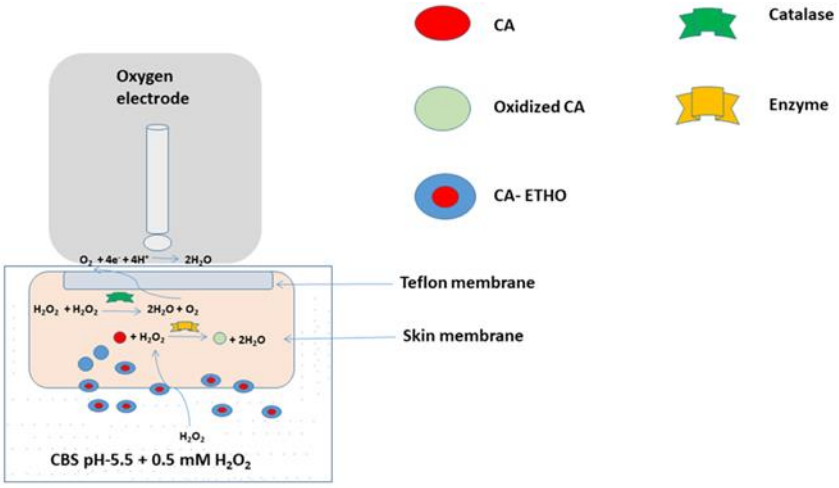

Figure S1. Schematic representation of mechanism of skin covered oxygen electrode. The equations 4 and 5 in the main text are illustrated here by reactions involving catalase and enzyme (with peroxidase like activity). Oxygen electrode current is proportional to O_2 concentration in skin, which is modulated by the extent of both mentioned reactions, since they compete for H_2O_2 as a common substrate. Catalase reaction produce O_2 from H_2O_2 (increases SCOE current), while peroxidase like activity in skin generates water from H_2O_2 (decreases SCOE current). Analyzing current responses to polyphenols in the presence of H_2O_2 allows to assess apparent kinetics of transdermal/topical delivery of antioxidant property of the polyphenol into skin.